

3/12/09

February 26, 2009

Mr. Ben Johnson, Mayor P.O. Box 228 Brockton, MT59213

Re: Wastewater Pond Project Town of Brockton IE# S0806107

Based upon a very preliminary design to relocate the wastewater treatment ponds to a new location we have estimated the total project cost around \$1.75 million. This option will need to be reviewed in more detail during the Preliminary Engineering Report phase.

This alternative will still require reclamation of the old ponds and sludge removal. This option is also expected to incorporate a new lift station to facilitate lagoon operation.

The following is a very preliminary breakdown of costs for the project:

Construction Cost	\$ 1	,410,000
Contingency	\$	140,000
Engineering Design	\$	70,000
Construction Engineering	\$	65,000
Geotechnical Engineering	\$	20,000
Legal/Admin	\$_	45,000
TOTAL	\$ 1	,750,000

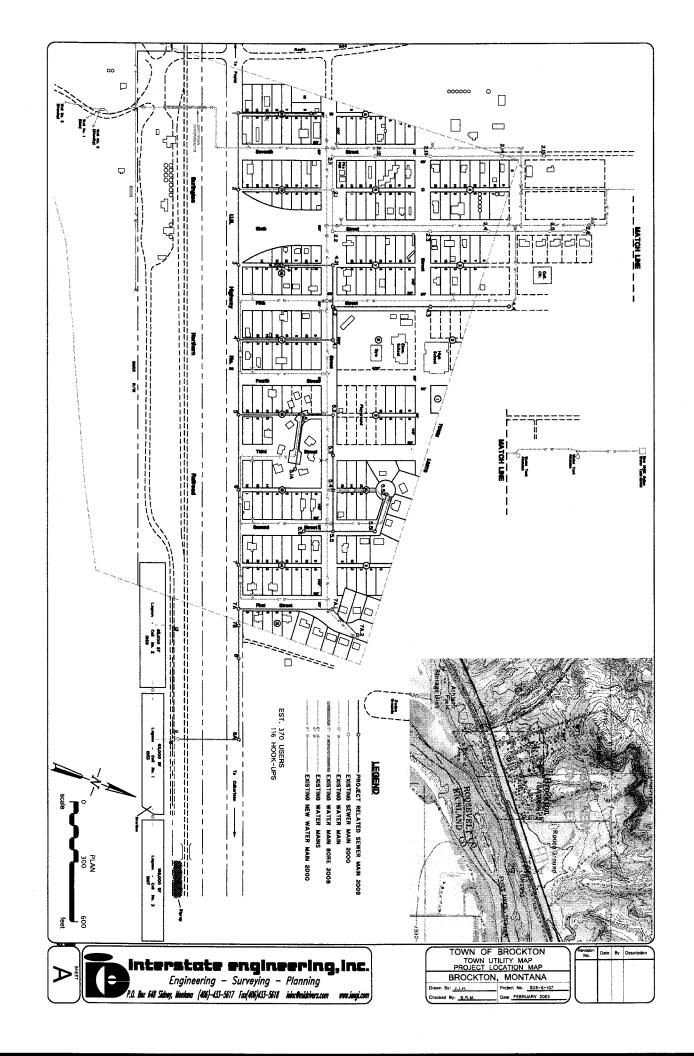
If you have any questions please feel free to contact myself or Jeff Hintz.

Respectfully submitted,

Lonni Fleck, P.E.

Senior Project Engineer

\$750,000.00 is requested for 2009 \$750,000.00 is requested for 2010





TOWN OF BROCKTON WASTE WATER TREATMENT SYSTEM IMPROVEMENTS Project Narrative

PROJECT BACKGROUND:

The Town of Brockton is located approximately 13 miles east of Poplar Montana adjacent to US. HWY 2 and rests within the boundaries of the Fort Peck Indian Reservation in Roosevelt County. The town overlooks the banks of the Missouri River directly to the south. According to the 2000 census the town has an estimated population of 245 people however, the town provides water and sewer utility services to nearly 370 users and currently has 116 water/sewer service accounts.

COLLECTION SYSTEM:

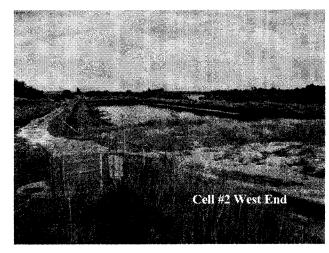
The town's waste water collection system is comprised of nearly 14,000 linear feet of sewer mains and 41 manholes. Of the total footage of sewer mains, it is estimated that nearly 2,000 linear feet of sewer main is the original vitrified clay pipe and/or asbestos cement pipe installed in the early 1950's. This pipe is scheduled to be replaced during the 2009 construction season through a grant provided by Indian Health Service (IHS). With this project, all sewer mains within the collection system will likely be updated with polyvinyl chloride (PVC) pipe.

TREATMENT SYSTEM:

The Town of Brockton operates a three cell facultative lagoon system directly south of the community and adjacent to the Missouri River. Normal operation of the lagoon system requires discharge into the Missouri River in accordance with the permit requirements as issued from the Montana State Department of Health and Environmental Sciences

(MSDHES). The discharge permit issued by the department allows a BOD level of 30 mg/l.

Flows into the treatment system are based on a projected population of 370 people plus flows from the school and other service hookups, the expected average daily flow is approximately 42,000 gallons/per/day (gpd). The final design will consider a 2% growth over a 20 year design period.



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The center cell of the treatment system (cell 1) is the oldest cell and was originally constructed in 1953. The capacity of this cell has been determined at approximately 65,000 square feet (SF) or 1.5 acres. In 1969 a second cell was added to the west side of cell 1 with a capacity of 85,000 SF or 1.9 acres. In 1987 a third cell (Cell 3) was added directly to the east of Cell 1 with a capacity nearly 165,000 SF or 3.8 acres. Cell 2 cannot be used to its full capacity as the floor elevation of the pond is heavily loaded with sludge and is above the influent piping. A lift station was installed in 2000 by IHS to overcome this issue, however, has not been placed into operation nor has this project been completed yet due to lack of funding. Sludge elevations in cells 1 and 3 is also expected to be high as none of the cells have ever been cleaned since there construction.

Currently, bank erosion from the Missouri River is threatening the dike system in the south-west corner of cell 2. If the existing ponds are to be rehabilitated, measures will need to be taken to adequately protect cell 2 and guard the riverbank from further erosion. Costs of armor plating the riverbank will likely exceed \$1 million itself in addition to the lagoon rehabilitation costs.



PROPOSED PROJECT:

Interstate Engineering, Inc. has been retained by the Town of Brockton to complete a Preliminary Engineering Report (PER) study to be use to apply for funding through the various state and federal funding agencies. The study will outline the various options of wastewater treatment and select the best treatment process and cost effective alternative to meet the current and future needs of the of the town. Some of the treatment alternatives to be studied will include, rehabilitation of all three current treatment cells, relocation of the treatment system to a new location, or abandoning the lagoon system and incorporating an extended aeration wastewater treatment package plant. Other alternatives will likely be looked into including the "Do Nothing" alternative.



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Of the above alternatives listed, it is expected that relocating the treatment ponds to a new location will likely be the selected alternative. Of course, this option will need to be reviewed in more detail during the PER study. With this option, the river erosion becomes a non-issue to the

town, however, dealing with the reclamation of the old ponds and sludge removal will be required with all of the listed alternatives. This option is also expected to incorporate a new lift station to be installed to facilitate adequate lagoon operation.

ENVIRONMENTAL IMPACT:

A complete environmental assessment review of the project study area will be completed during the PER study. At this time, there is no evidence of extraordinary or exceptional circumstances that would preclude the project from meeting the criteria for use of the categorical exclusion. No work will begin on this project until a complete environmental assessment has been completed and approved and a "Finding of No Significant Impact" (FONSI) has been approved and made available for public comment.

COST:

At this stage of the project, the selected alternative would include the relocation of the treatment ponds to an area away from the Missouri River and out of the flood plain. Based on previous and similar projects completed by Interstate Engineering, Inc. for town's similar in size, Circle-2008, Wibaux-2008, Richey-2006 and Nashua-2003, it is estimated that the selected alternative would cost approximately \$1.75 million. This alternative will likely be a non-discharging facility and include the installation of a new lift station and synthetic liner.

If you have any question or require any clarification to the above report or attachments, please do not hesitate to contact us at your convenience.

ATTACHMENTS

Town Utility System Map

Q:\2008\S08-06\107 Brockton - lagoon_sewer\Documents\TOWN OF BROCKTON Preliminary Report.doc